CONTENTS OF VOLUME 104C

,	ol. 104C, No. 1
1	Species differences in the metabolism and hepatotoxicity of coumarin
9	Cloning of the <i>Drosophila</i> cyclodiene insecticide resistance gene: A novel GABA _A receptor subtype?
13	Localisation of aminopeptidase activities in the central and peripheral nervous system of <i>Helix aspersa</i> by fluorescence histochemistry
21	The effect of diamox at two dietary calcium levels on growth, shell thickness and distribution of Ca, Mg, Zn, Cu, P in the tissues of the snail <i>Achatina fulica</i>
29	The development of a blood clotting response test for discriminating between difenacoum-resistant and susceptible Norway rats (Rattus norvegicus, Berk.)
37	Morphological aspects of Achacin-treated bacteria
43	Synthesis and bioactivity of new phosphorodithioates derived from N -substituted maleamic esters
47	Effects of diltiazem on liver mitochondria of rats: A reconsideration
51	Xenobiotic metabolizing enzymes in uninduced and induced rainbow trout (Oncorhynchus mykiss): effects of diets and food deprivation
57	The effects of the anesthetic ketamine hydrochloride on oxygen consumption rates and behaviour in the fish <i>Heros</i> (Cichlasoma) citrinellum (Günther, 1864)
61	Effects of in vivo benzene treatment on cytochrome P450 and mixed-function oxidase activities of gilthead seabream (Sparus aurata) liver microsomes
67	The effects of chronic exposure to the water soluble fraction of fuel oil on an antarctic fish Pagothenia borchgrevinki
71	Effects of parathion and 2,4-D to eggs incubation and larvae hatching in <i>Chasmagnathus granulata</i> (Decapoda, Brachyura)
79	Distribution and partial characterization of FMRFamide-like peptides in the horseshoe crab, <i>Limulus polyphemus</i>
87	Analysis of selenium metabolites in urine samples of minke whale (Balaenoptera acutorostrata) using ion exchange chromatography
	1 9 13 21 29 37 43 47 51 57 61 67 71 79

T. Nasu, J. Suzuki and H. Shibata

91 Tension inhibitory effect of lead ions and lead uptake in ileal longitudinal muscle of the guinea-pig

T. Nasu, I. Ooyama and H. Shibata	97	Inhibitory effects of hexavalent chromium ions on the contrac- tion in ileal longitudinal smooth muscle of guinea-pig
G. A. Gerencser	103	Effect of prostaglandin F_{2a} on transmural potential difference and short-circuit current in isolated frog (Rana catesbeiana) skin
N. A. Shamaan, R. Hamidah, J. Jeffries, A. J. Hashim and W. Z. Wan Ngah	107	Insecticide toxicity, glutathione transferases and carboxylesterase activities in the larva of the Aedes mosquito
J. P. Gillespie, H. A. Koshinsky and G. G. Khachatourians	111	The occurrence of inducible anti-Escherichia coli activity in hemolymph from the migratory grasshopper, Melanoplus sanguinipes
M. Fingerman and G. K. Kulkarni	117	Quantitative measurement by reverse phase high performance liquid chromatography of norepinephrine in the central nervous system of the red swamp crayfish, <i>Procambarus clarkii</i> , and physiologically and pharmacologically induced alterations
M. Garcia-Gil, D. Bottai, M. L. Zaccardi, M. Cannizzaro and M. Brunelli	125	Effect of serotonin on protein phosphorylation in the central nervous system of the leech <i>Hirudo medicinalis</i>
W. S. Skinner, P. A. Dennis and G. B. Quistad	133	Paralytic peptides from hemolymph of the lepidopteran insect $Trichoplusia\ ni\ Hubner$
H. Raza and W. Montague	137	Drug and xenobiotic metabolising enzymes in camel liver: Multiple forms and species specific expression
V. P. Palace and J. F. Klaverkamp	147	Variation of hepatic enzymes in three species of freshwater fish from Precambrian shield lakes and the effect of cadmium exposure
A. Biegniewska, M. T. Thebault, M. Ziętara and E. F. Skorkowski	155	Antagonism between cadmium chloride and divalent metal cations in the activation of malic enzyme
R. S. Rawding and V. H. Hutchison	159	Effect of chlorpromazine, 5-hydroxytryptophan, and benserazide on plasma melatonin in the mudpuppy, Necturus maculosus
F. Martínez, R. Milán, M. T. Espinosa-García and J. P. Pardo	165	The antifertility agent, gossypol, releases calcium from rat liver mitochondria
S. Daniels and C. J. Duncan	171	Interaction of H_2O_2 and dithiothreitol and the genesis of cellular damage in the perfused rat heart
N. I. Kononenko	175	Role of cyclase system in generation of pacemaker activity in fast and slow bursters in snail, Helix pomatia
K. Matsuda, H. Okimoto, M. Hamada, K. Nishimura and T. Fujita	181	Neurophysiological effects of insecticidal pyrethroids and methoxychlor and of the anticalmodulin agent W-7
O. Suga, K. Oishi and M. K. Uchida	187	GTP-binding protein amplifies contractile responses of $\alpha\text{-}$ toxin-permeabilized uterine smooth muscle to Ca^{2+}
A. Schmid, A. Scheidler, P. Kaulen and G. Brüning	193	Serotonin-immunoreactivity and serotonin binding sites in the brain of the blowfly Calliphora erythrocephala: A combined immunohistochemical and autoradiographic study
	199	Effects of cyclic AMP, cyclic GMP and IP, intracellularly

Mini-Review

E. Tanaka, A. Ishikawa, S. Kobayashi, H. Yasuhara, S. Misawa and Y. Kuroiwa

205 Trimethadione metabolism as a probe drug to estimate hepatic oxidizing capacity in rats

General Papers		
E. Van Wyk, F. H. Van Der Bank, G. H. Verdoorn and H. Bouwman	209	Chlorinated hydrocarbon insecticide residues in the Cape griffon vulture (Gyps coprotheres)
G. A. Bubenik, L. P. Niles, S. F. Pang and P. J. Pentney	221	Diurnal variation and binding characteristics of melatonin in the mouse brain and gastrointestinal tissues
F. Basaglia and C. Cucchi	225	Effects of benzidine on the electrophoretic behaviour of some enzymes in <i>Ictalurus</i> species (Ictaluridae, Teleostei)
M. Q. A. Turrin, L. F. S. dos Santos and L. V. da Veiga	233	Generation of atrial natriuretic peptide (ANP) in perfused lungs of spontaneously hypertensive rats (SHR). Comparison to Wistar-Kyoto (WKY) and Wistar (W) rat strains
P. Battaglini, G. Andreozzi, R. Antonucci, N. Arcamone, P. De Girolamo, L. Ferrara and G. Gargiulo	239	The effects of cadmium on the gills of the goldfish Carassius auratus L.: metal uptake and histochemical changes
Long-Chuan Yu and Yi-Peng Cai	249	Effects of opioid receptors antagonists administration to suprachiasmatic nucleus on hibernation of ground squirrels Citellus dauricus
M. J. M. Toussaint and H. Nederbragt	253	Copper and zinc toxicity in two rat hepatoma cell lines varying in differentiation
C. Lindi, P. Marciani and F. Omodeo-Sale	263	Age related changes in functions and physicochemical properties of rat jejunal brush border membrane after chronic ethanol administration
K. Zaman, W. Zaman, Z. Dabrowski and H. Miszta	269	Inhibition of delta aminolevulinic acid dehydratase activity by aluminum
T. Tsuda, S. Aoki, M. Kojima and T. Fujita	275	Accumulation and excretion of organophosphorous pesticides by carp <i>Cyprinus carpio</i>
C. J. Church and C. O. Knowles	279	Relationship between pyrethroid enhanced batrachotoxinin a 20 - α -benzoate binding and pyrethroid toxicity to susceptible and resistant tobacco budworm moths <i>Heliothis virescens</i>
L. Vitanova, P. Kupenova, E. Popova, L. Mitova and S. Belcheva	289	Comparative investigation of retinal responses to brief light stimuli: 2-amino-4-phosphonobutyrate studies—I. Frog retina, Rana ridibunda
L. Vitanova, E. Popova, P. Kupenova, L. Mitova and S. Belcheva	299	Comparative investigation of retinal responses to brief light stimuli: 2-amino-4-phosphonobutyrate studies—II. Turtle retina (Emys orbicularis)
W. G. Lan, M. K. Wong and Y. M. Sin	307	In vitro effect of mercuric chloride on ATPase activity in kidney of the fancy carp Cyprinus carpio
R. Salceda and M. R. Saldaña	311	Glutamate and taurine uptake by retinal pigment epithelium during rat development
D. Schlenk and M. Brouwer	317	Induction of metallothionein mRNA in the blue crab (Callinectes sapidus) after treatment with cadmium
F. Pellicer, M. Asai, M. León-Olea and M. Sánchez-Alvarez	323	In vitro release of immunoreactive Met- and Leu-enkephalins in whole perioesophageal ganglia of Helix aspersa
S. O. Suadicani, J. C. de Freitas and M. I. Sawaya	327	Pharmacological evidence for the presence of a beta- adrenoceptor-like agonist in the amphinomid polychaete Eurythoe complanata

M. W. Fleming

333 Catecholamines during development of the parasitic nematode, Haemonchus contortus P. W. Albro, J. T. Corbett and 335 The metabolism of di-(2-ethylhexyl) phthalate in the J. L. Schroeder earthworm Lumbricus terrestris F. M. Sherif, S. S. Jossan 345 Gamma-aminobutyrate aminotransferase activity in blood platelets of six species and L. Oreland Oral administration of peptides derived from bonito bowels H. Karaki, M. Kuwahara, S. Sugano, C. Doi, K. Doi, N. Matsumura decreases blood pressure in spontaneously hypertensive rats by and T. Shimizu inhibiting angiotensin converting enzyme Vol. 104C, No. 3 Mini-Reviews A. Viarengo and J. A. Nott 355 Mechanisms of heavy metal cation homeostasis in marine invertebrates N. Mori and H. Yokoyama 373 Role of superoxide dismutase in a kindling model of epilepsy W. E. Donaldson and S. O. Knowles Is lead toxicosis a reflection of altered fatty acid composition of membranes? General Papers N. J. Marks, A. G. Maule, D. W. Halton, 381 Distribution and immunochemical characteristics of neuro-C. Shaw and C. F. Johnston peptide F (NPF) (Moniezia expansa)-immunoreactivity in Proteocephalus pollanicola (Cestoda: Proteocephalidea) N. Koçak-Toker, D. Ayribaş and M. Uysal 387 Species difference in plasma antioxidant activity N. Schmitt, B. Lucas-Heron and Changes in mitochondrial calmitine and calcium in rat dener-B. Ollivier vated skeletal muscle after injection of a myotoxic drug, chlorpromazine A. Hirashima, T. Nagano, R. Oishi Stereoselective response of Tribolium castaneum Herbst and and M. Eto Musca domestica L. against optically active 2-methoxy-5phenyl-1,3,2-oxazaphospholidine 2-sulfide J. H. Eisemann and G. B. Huntington 401 Effects of dietary clenbuterol on net flux across the portaldrained viscera, liver and hindquarters of steers (Bos taurus) T. Yano, G. Ishikawa and T. Ichikawa Oxidative stress as a modulating factor of pulmonary tumorigenesis in mice; comparative study on two different strains K. R. Jennings and H. M. Shieh 411 The effects of synthetic thymopoietin on binding of α -bungarotoxin to rat neural membranes P. A. Voogt, B. Bissumbhar, T. M. Idzinga, 415 Effects of cadmium on sterol composition in the aboral H. J. Wynne and M. Jansen body-wall of the sea star Asterias rubens L. Yoo-Hun Suh, In-Sik Lee, Sung-Soo Kim, 423 Ligand binding characteristics of [3H] dihydroalprenolol in Woong Choi, Chan-Woong Park, cerebral cortical membranes of young and old senescence-Myung-Hee Chung and Jung-Kyoo Lim accelerated mouse E. Hassoun, M. Bagchi, D. Bagchi and Comparative studies on lipid peroxidation and DNA-single S. J. Stehs strand breaks induced by lindane, DDT, chlordane and endrin in rats E. Antignac, M. Fukuhara and Effects of dexamethasone on the hepatic cytochrome P450 IIIA M. Kimura subfamily in two hamster strains Mesocricetus auratus and Cricetus griseus 439 Stizolobic acid on frog spinal cord; possible species dependent M. Maruyama and K. Takeda activation of excitatory amino acid receptors

C. Cebrian, E. Andreu-Moliner and 445 The effect of time, concentration and temperature on bioaccumulation in the gill of crayfish Procambarus clarkii M. Gamon induced by organochlorine pesticides, lindane and endosulfan M. İşcan, B. C. Eke and T. Çoban 453 Combined effects of cadmium and nickel on hepatic glutathione S-transferases in rats P. C. Lee, H. I. Yoon, M. L. Haasch Negative control of cytochrome P450 1A1 (CYP1A1) by glucoand J. J. Lech corticoids in rainbow trout liver C. Sánchez-Bernal, M. Sánchez-Martín, 463 Toxic oil syndrome: a study of renal function in guinea pigs fed A. Sánchez Llorente, J. A. Cabezas toxic oil and N. Pérez González Y. Fujisawa, I. Kubota, K. Nomoto, A Mytilus peptide related to the small cardioactive peptides H. Minakata, Y. Yasuda-Kamatani, T. Ikeda and Y. Muneoka (SCPs): structure determination and pharmacological characterization K. T. Fredricks, W. H. Gingerich and 477 Comparative cardiovascular effects of four fishery anesthetics D. C. Fater in spinally transected rainbow trout, Oncorhynchus mykiss R. A. Alzogaray and E. N. Zerba 485 Temperature effect on the insecticidal activity of pyrethroids on Triatoma infestans T. S. Gill, G. Leitner, S. Porta Response of plasma cortisol to environmental cadmium in the and A. Epple eel, Anguilla rostrata LeSueur